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ABSTRACT OF THE DISCLOSURE

The invention, relates to a method for optical fiber communication. An optical signal having chirping determined by a chirp parameter is output to an optical fiber transmission line. The optical signal transmitted by the optical fiber transmission line is converted into an electrical signal. A bit error of the electrical signal is detected. Then, the chirp parameter is controlled so that the bit error detected above is reduced. According to this method, the chirp parameter is controlled so that the bit error detected is reduced. Accordingly, a chirping occurring in the optical fiber transmission line can be suppressed by the chirping of the optical signal to be output to the optical fiber transmission line, thereby compensating for chromatic dispersion and nonlinearity.